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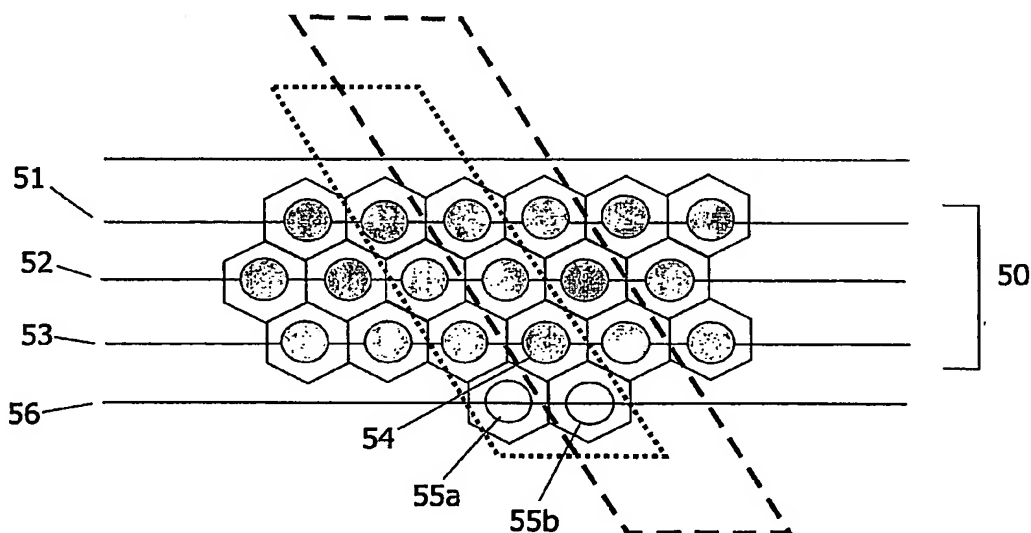
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(54) Title: ITERATIVE STRIPEWISE TRELLIS-BASED SYMBOL DETECTION METHOD AND DEVICE FOR MULTI-DIMENSIONAL RECORDING SYSTEMS



(57) Abstract: When processing a two dimensional data area it is known to be advantageous to divide the two dimensional area into stripes and process each stripe using a stripe-wise detector. The stripe being processed shifts row per row downwards. Each stripe has as its output the bit-decisions of the top bit-row of the stripe which is the most reliable. That output bit-row is also used as side-information for the bit detection of the next stripe which is the stripe which is shifted one bit-row downwards. The bit-row just across the bottom of the stripe on the other hand still needs to be determined in the current iteration, so only the initialisation bit-values can be used in the first iteration of the stripe-wise bit-detector. In order to prevent the propagation of errors towards the top bit row of the stripe the relative weight for the bottom branch bit in the figure-of-merit is reduced from the full 100% to a lower fraction.

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